Cultivating Imagination Across Boundaries

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CULTIVATING IMAGINATION ACROSS BOUNDARIES – INNOVATION PRACTICE AS LEARNING THROUGH PARTICIPATORY INQUIRY

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ABSTRACT

When regarding innovation practice from both a research and a practitioner's perspective the temptation can be to focus on formal outcomes: technology, concepts, products and services. As a result continuous innovation can be considered a means to streamline the processes necessary to achieve those outcomes. However this understanding of innovation can divert attention from how things and operations are actually achieved. Value may be lost in an innovation process, because the resources of those involved, how they get things done on a day to day basis, are not identified as such. By adopting a perspective that is based on complex processes of relating we argue that innovation can be otherwise seen as the emergence of new meaning that arises from the ongoing gesture and response interactions between those involved through the knowing, doing, making and relating of participatory inquiry and that the practice of doing innovation is inherently learning driven.

Keywords *- Participatory Innovation, Participatory Inquiry, Innovation Practice, Shared Imagination*

1. INTRODUCTION

A traditional approach to innovation is that it is the efficient predicting, planning, making and controlling of specific new objects, concepts or services, a process that requires a significant degree of a priori knowledge about outcome and possibilities.

An alternative is to consider innovation as an open ended process, a process of inquiry where people are brought together in a space of possibilities; a participatory environment that is inherently variable and thus emergent. Hence the terms participatory innovation and participatory inquiry that will be central to this paper where we argue for expanding the perspective from: "How can we efficiently achieve a more or less known goal?" to "How can we effectively explore, make and give sense to something new and engage in processes that encourage the new to emerge?"

By taking this perspective we "do not intend to ignore the role of, for example, technology or the importance of efficiency, control and concrete measurements of (historical) performance as a basis and goal for organizational decision making" (Larsen and Sproedt 2013). However as much as there is a recognised need for continuous innovation, the will to engage innovation endeavours can be countered by an unwillingness to engage the risk, tension or conflict that make up the dynamic and emergent environment of such an endeavour. The temptation can be to exert a degree of control by prescribing processes that will predict, plan and altogether rationalise the process. The danger being that the very nature of innovation, its unfolding, source of diversity and emergence of new meaning that can lead to innovative potential will be stifled. Equally, an overt focus on the value of the more formal outcome of an innovation process, the concept, product, service, etc. may divert attention from *how* things are achieved. Value may be lost in an innovation process, because the resources of those involved, how they get things done, are not identified as such.

Based on experiences and observations from two cases we propose to expand the theoretical understanding, and the educational and business practice of innovation by embracing the knowing, doing, making and relating of participatory inquiry as central drivers of an innovation process.

2. BACKGROUND

2.1 INNOVATION

Using the above as a departure point, innovation can thus be considered an unfolding rather than a foreclosure, where objects or concepts emerge from the relational positioning of those involved; a field of relationships thick with the sociality of complex responsive processes of relating (Stacey, Griffin & Shaw 2000, Shaw & Stacey 2006, Buur and Larsen 2010a, Buur and Larsen 2010b). Tensions are engendered in this field of relationships through a complex interplay of the hopes, dreams and aspirations of those involved and the inherent constraints of the present. Variations of interpretation in the tensions leverage shifts in understanding, which are ultimately expressed as emergent syntheses or innovation proposals. In order to engage this dynamic flux participants improvise by deploying a range of sensibilities, skills and processes that are continually adjusted in close relationship with the contingency of the task in hand and the knowing, doing, making and relating of those involved.

This approach to innovation is grounded in George Herbert Mead's thinking (1938) which has been further developed as a theory of complex processes of relating by Stacey, Griffin and Shaw (2000:43) where they say: "For Mead, the source of variation lay in the gesture and response structure of interaction between organisms. Variation, with its potential for transformation, arises in the micro detail of interactions between people." Sense making, sense giving and understanding emerge from the ongoing and interdependent interactions between those involved in a particular situation and as embedded in that situation. "By drawing on this perspective one can infer that innovation happens when practices change in the emergent processes of negotiating new meaning, new opportunities, new insights, new thinking and new doing" (Larsen and Sproedt 2013). So, instead of considering innovation as solely related to the resolution or development of a specific solution, technology or product one can consider innovation as a continuous process of "organizational becoming" (Thomas et al, 2011) that "emerges from the local interactions of those involved" (Stacey 2005).

2.2 LEARNING

The development of knowledge or learning is "always a process and a relational one at that... Knowledge is an act of conversing, and learning occurs when ways of talking and therefore patterns of relationship change" (Stacey 2001: 76). In this sense learning leverages the participatory nature of communicative interaction between people. Learning emerges as thematic patterns of meaning, or knowing, in the ongoing relating between those involved in "a continually evolving present"(ibid: 125-131). Innovation practice is an ongoing process of transformative learning (Thomas and Brown, 2011; Illeris, 2003; Sproedt, 2012) that unfolds as the continuous becoming of that practice through participatory inquiry. As such, learning is considered as understanding in practice and as situated in that practice (Lave 1990: 130) through the interweaving of knowing, doing, making and relating.

Understanding innovation practice as learning that emerges from participatory inquiry reveals an apparent paradox, or almost opposing paradigmatic understanding of doing innovation, which raises the central question:

How can we effectively explore, make and give sense to something new and engage in processes that encourage the new to emerge?
Related sub questions are:
How does the new emerge from the tension between imagination and constraint?
How are people learning in and with this kind of practice?
How does one educate today's students to become the practitioners of tomorrow? Practitioners who can work with confidence in the dynamic and emergent environment of participatory innovation?

3. INNOVATION PRACTICE AS LEARNING THROUGH PARTICIPATORY INQUIRY

3.1 RESEARCH DESIGN

In the two cases described a hermeneutic phenomenological research approach was adopted, an approach that points to the understanding of human actions as "articulations of meaning" (Fink-Jensen 2006). For a hermeneutic phenomenological project the "multiple stages of interpretation allow patterns to emerge" (Koch 1995 in Laverty 2003 p. 23) between the researcher and the participants, which are used to generate a synthesis of evolving understandings in close relationship to the particular context or as Whitehead calls it "... a temporary coalescence of views about a phenomena or experience" (Whitehead 2003 p. 513). Both authors of this paper took on the role of interventionist where they were involved in a "co-learning" and "co-generative dialogue" (Elden and Levin 1991) with their participants. Elden and Levin specify this by noting that a researcher has the "...role of "co-learner" rather than of "expert in charge of change" and s/he can "fade out" to allow participants to take charge of their own learning" (ibid. p. 129). Agyris and Schön (1991: 86) describe the "evaluation and amending" involved as action research "intervention experiments" where, "Action research takes its cues - its questions, puzzles, and problems - from the perceptions of practitioners within particular, local practice contexts. It bounds episodes of research according to the boundaries of the local context. It builds descriptions and theories within the practice context itself, and tests them there through intervention experiments" with the one experiment informing the next.
As such our research approach in both cases emphasised: intervention, participation, co-learning and action response or re-experiment, where the "lived experience" and "interpretations of the actions and events" of those involved (Fink-Jensen 2006) were considered as "articulations of meaning" that related directly to the context in which they found themselves.
In order to avoid a generalised account that obscures the significance of what is going on, the following case or incident descriptions have been deliberately constructed as fine grain, ethnographic narrative and reflexive accounts that explore the micro interactions between those involved, including the researcher. The thrust of both cases is to identify how the ongoing nature of local interactions generates meaning and encourages the new to emerge. Both cases rely on notes and photographs taken at the time and what we choose to call narrative recall, an after the fact piecing together of the facts in order to compose and write up a sustainable narrative. In the first case the account is given as a first person narrative in order to account for the author as researcher's involvement in the situation as organizer and facilitator.
The first case is situated in a large European manufacturing company and the second in a university educational context.

3.2 THE CASES

3.2.1 DOING INNOVATION IN A BUSINESS CONTEXT

"So, what do you want us to do now?"

This case describes an incident, a meeting that took place as part of a longer innovation course that the second author organised and facilitated with 25 engineers in a large European manufacturing company. Prior to the meeting I had interviewed the participants in groups of two and three to hear their motivation for signing up for the course. I also interviewed their immediate managing director and the human resources contact person who had organised the course. The overarching brief we worked out was, "Knowledge Sharing Across the Company."

My aim was to use the engineers' particular working context and in house projects as the basis for the course. Reflections from the initial interviews revealed a range of understandings as to what constituted innovation in the company: "We have to get it right the first time / How to work with innovation as part of a busy day? / How do daily operations relate to the bigger picture? / Foster change v. faster change / How do you sell innovation in house? / How do we identify the relevant stakeholders and users? / How do we ask people to change how they do things? / How do we motivate others? / A big part of innovation is the human dimension." The participants were divided into interdisciplinary groups and were asked to identify a project they could work on that related to some themes the managing director had identified as useful to ongoing operations.

The first meeting I have with this particular group, Group G, which has four members, D, L, N and U, takes place a week after we held an introductory workshop. All four have technological, scientific or engineering backgrounds. Despite having a project theme as common ground, the skills and expertise of each participant is varied. Before I meet the group, they have in a previous meeting decided to follow the first workshop process, where each individual in a group presented their project preferences whilst the others wrote key words on post-its.

The meeting is to be held at one of the company's outlying production plants. In the meeting room a large whiteboard covers most of the end wall. Four rows of individually coloured post-its cover a small portion of the whiteboard. The four in the group sit down as I enter. I sit down across from them. At first they describe their previous meeting's process and how they generated the post-its, 54 in all or 10 - 15 each. There is tangible pause. I wait to see what they will say next. One group member, D suddenly announces: *"We've done what you asked us to, but now we can't get any further. So, what do you want us to do now?"* I avoid the question and ask if we can go to the whiteboard. I need to hear what the individual post-its stand for, hear how they explain things. At this stage I have no idea what else to say. I haven't had time to orient myself to what they are doing or have done. Their accounts are brief, factual and to the point. They lack any in-depth description of how their project relates to their daily work or to the other's projects.

Initially I am hesitant and unable to respond, unable to generate any associations. I have difficulty seeing what they are trying to describe. So I take that as my departure point: *"I'm sorry, but I can't quite follow what you're saying. This is all new to me. Can you describe it again and this time can you draw something to show me what you mean."* I shed my role as expert. Our roles shift. The discussion shifts. What follows is a process of gesture and response where two of the participants, L and U try to explain their daily operations to me by drawing on the whiteboard the various types of production equipment they design and use. Although neither of them are very good at drawing the vagueness of the drawings enables me to ask naive questions. A situation develops where we can point, tell, understand and misunderstand, draw and redraw. Gradually I

am able to "see" what they are getting at, what their concerns are and imagine people using their equipment. The discussion shifts from the purely verbal to the verbal and visual, to doing and making. The other two in the group are silent.
It is now N's turn to describe her project. She is hesitant, almost reluctant to engage. She is a chemical engineer and designs industrial adhesives that are used in the company's production process. Her key points circle her reasons for wanting to design a new adhesive, its benefits compared to the present composition and her frustration that many people in the company do not understand her or her contribution. Finally the discussion moves to D who can't find common ground with the others' projects, as his area is far more generic, namely safety and quality across the company.
I have difficulty seeing any relationships between the projects that they can build on. The suggestions put forward, the narratives of their practice are also weak. There is little to get hold of. They all hold senior positions in the company, so their practice must be reasonably complex. I suggest to the group that they are going to have to generate a greater degree of complexity in their material to be able to see new potential across their projects. I explain this by drawing a series of interwoven lines on the whiteboard, the intersections of which I highlight with coloured circles.
I then draw an umbrella on the whiteboard and above it write: How can knowledge sharing expand and influence your development process? After this I ask N to explain what criteria she needs to design her new composition. She describes in detail the chemical composition and at one point discusses its setting time. A word she uses is thixotropy. Without my realising its significance at the time, L had also used the same word when describing his equipment. The setting time of N's adhesive, its thixotropy, affected the design of L's equipment.
This is the first time I consciously register a common denominator across three of the projects. I probe this further by asking naive questions. What emerges from the discussion is that N's adhesive compositions, in particular their setting time have a significant impact on the working situations of L and U's co-workers. N's excitement at having made this discovery is quite apparent. Here we have probably the most scientific member of the group suddenly realising that her science plays a significant role in people's daily working practice and welfare on the job.
As a result of N's personal discovery, L and N pose almost the same question: *"How is it that we haven't met before?"* A short discussion ensues. Questions circle: *"Who do I and who can I share my knowledge with?"* N brings the discussion right down to floor level when she asks: *"I need to know what you guys need to know."*
The discussion moves to D. His conclusion is that if the fine interplay and understanding established between L, U and N's projects were realised in practice then it would help his two principal concerns, namely safety and quality.
Following the leads that emerge from this discussion I am now in a position to make a few suggestions. The four in the group could see and hear for themselves how even naive and unexpected questions from me could open up the discussion to enable us all to make associations we could build on. Indeed this was cultivated to an even greater extent in our next meeting. We round the session off by my asking the group to generate as many new links as they could think of that reached across their projects and across the company in answer to the principal theme of knowledge sharing.

3.2.2 Doing Innovation in an Educational Context

So how can we learn differently?

The case in question is a New Business Models II course (NBM II), which the first author taught in the Spring term 2014. NBM II is an elective in the 6th semester (3rd year) of the Bachelor of Science in Engineering Innovation and Business. The course aims to deepen the students' understanding of business model challenges and to

encourage them to grapple with workplace reality where individual mastery is not enough and sustainable collaboration is important.

In the course, the students went through three stages of learning. First, in traditional lectures and seminars, they learnt about business model basics. Second, they interviewed practitioners by focusing on how business models are used in practice. On the basis of these two processes, they broadened their understanding of the issues that arose in collaborative, open question sessions. These were sessions where the students were asked to individually generate questions that were then voted on, argued for, dismissed or retained until there was only one question left to work on.

Based on the interviews and open question sessions, the students critically explored opportunities and obstacles for developing business models. They then used what emerged to make tangible business models for the organizations they interviewed. Finally, the models were tested in practice with the organizational representatives they had previously interviewed. Throughout the course the students worked in groups and each group had a blog where they published homework and reflections on the course. This blog is also the source of the quotes presented below.

The students were encouraged to take active part in the lectures and open question sessions. When asked to reflect on the course many students noted the different kinds of social interaction the course encouraged. As student E expressed it: *"I really liked that we, the students, were participating in the lectures through discussions and presentations... students in this course are constantly involved in the lectures, which means that we both learn and remember."*

And as M explains: *"Discussing in the group about those topics gave me a whole new way of thinking and new points of view. It brought the lectures alive and we could work together. There was never a Right or Wrong... As soon as we started with the preparation of the interview and the building of the tangible business model, I realized, that it was important to go through the "theory."*

What emerged as typical for the course is that when students were confronted with the fact that their known practice was insufficient and had to improvise in order to work with new theory and processes, shifts in learning occurred. This begs the question: How does improvised practice and active participation leverage learning?

It appears that strengthening social interaction between the students had a direct impact on how meaningful they saw aspects of the course. The more open the working situation and the greater the space for interaction between them, the better they were able to identify with and take ownership of the task and the materials of the situation, (Bamberger & Schön 1991) and find their own way through their inquiry.

The cultivation of divergent points of view through participatory inquiry and the discovery of theory through making increased the trust and shared understanding generated when *"we could work together."* The weaving together of that divergence amounts to what we choose to call a shared imagination that emerges from the social interaction. Through their active participation and learning the students collaboratively constructed a field of inquiry, an innovation space they could explore, expand, identify with and imagine (Heape 2007).

It also emerged that it was necessary to gradually move from a learning process that focused on the acquisition of knowledge as facts and schema (Lave 1990: 310), to that of participatory inquiry that links learning to the action and interaction of knowing through exploration and experiment. The reason for this being that a) the students should have the opportunity to be aware of the difference between the process of acquiring knowledge and engaging knowing, and critically reflect on that difference, and b) it takes time for shared understanding, trust and imagination to occur.

As the students moved from talking about data and cases to actually doing an interview with a company and making sense of it by building a tangible business model, they transitioned from a process of knowledge acquisition to active knowing through participatory inquiry; a process that challenged them. They were not familiar with doing interviews or with building tangible business models. Initially they were reluctant and confused about having to do this kind of making. This led to discussions where the students realised that the objective of the task was not a question of getting it right, but rather of doing and making in order to reflect and learn from experience, and to link theory with practice through active participation. The open question sessions also helped the students cope with the transition and to relate to the ambiguity between theory and practice.

The open question sessions also enabled the author to relate to the students' challenges and to adjust the teaching accordingly. But more importantly participation increased as the students took ownership of their learning situation. The process empowered them in their knowing, doing, making and relating, which in turn fuelled their understanding and learning. They experienced first hand how meaning emerged through reflective interaction and how it was situated in the context of their practice. This as opposed to asking them to work with theoretical knowledge divorced from a specific context of practice. As the following quote shows, the students' doing and making enabled them to contextualise their process of knowing through a relating to others and thereby engage a meaningful exploration of their task: *"Doing the interview and, based on that, building a business model not only helped us, but also the director of the company to play with challenges and dilemmas his company is faced with."*

In short, participatory inquiry, as an educational strategy, strives to equip learners with the ability to navigate the ongoing, dynamic flux, complexity and tensions of modern innovation practice by engaging them in and asking them to reflect on learning processes and projects that combine and explore the interdependency of knowing, doing, making and relating. This type of inquiry-based learning is not intended to replace more traditional, lecture-based learning. On the contrary, as was seen above, participatory inquiry enables learners to bring theory acquired through more traditional lecturing or analysis based learning into play with the theory and skills they discover through their own practice.

4. DISCUSSION

Improvising with doubt

The first case is a very good example of innovation practice as organisational becoming (Thomas et al, 2011). Albeit a vignette, it is a clear example of how "the source of the variation lay in the gesture and response structure of interaction between" those involved (Stacey, Griffin & Shaw 2000:43). "Variation with its potential for transformation arises in the micro detail of interactions between people" (ibid.), a transformation that then amplifies and ripples out to initially influence the group and then their organisation as innovation and change.

The second case, we would like to consider as an example of innovation practice as an educational becoming, where the notion of knowledge as the acquisition of facts is challenged by the interrelated process of knowing, doing, making and relating of participatory inquiry or as understanding in and through practice (Lave 1990: 310), in its attempt to equip students to be able to manage and work in the dynamic and emergent context of participatory innovation.

As was indicated, at the first meeting the narrator's initial reaction to the material the group had generated and the verbal descriptions of it, was his inability to orient himself

to what they had done or said. He was unable to resonate with anything he heard or saw that could help him. He couldn't *see* anything!

However, it was in those few seconds of hesitation that the unfolding of the moment revealed how he could respond: "I'm sorry, but I can't quite follow what your saying. This is all new to me. Can you describe it again and this time can you draw something to show me what you mean." It was in fact the only thing he could do. He had, to use Frank Barrett's words (2000: 228 - 245), to improvise by surrendering to the situation. Not in the sense that he was "giving up" or "giving in," more to allow him to respond to the situation as it unfolded rather than how he would have liked it to have unfolded or have been prescribed beforehand. The result was twofold, namely that he allowed himself to assume another role, that of apprentice, which also gave the group the means to expand their accounts and step into roles where they were less hesitant. In this situation, the nature of the inquiry shaped the relating. The participants' roles shifted.

This is an example, albeit brief, of what Ingold (2000: 195) describes as a "mutual attending to one another... Or what Schutz (1951: 78) called a 'mutual tuning-in relationship' that is an absolute precondition for successful performance." A performance and attitude of mind that embraces the uncertainty of a participatory innovation process as an attuned improvising with others.

It would be tempting to think of the idea of asking the others to draw and tell as the narrator's own. It is probably more apt to suggest that it was a shared gesture that emerged between the participants. The inquiry as it had developed up to that point, even though it was in its initial stages, set up a correspondence between the five. Improvising is whatever happens between people in their interdependency, between their mutual gesturing and response. It was the quality of the conversation (Buur and Larsen 2010a), regardless of the hesitation on the narrator's part or the reticence of the others that enabled the tell-and-draw suggestion to emerge. It was a unique moment and no doubt paved the way for what would later emerge.

One of the most interesting aspects of the situation as it developed, was how the drawing, telling, re-drawing and re-telling enabled all involved to engage both the verbal and the visual. When we say visual, we don't just mean the actual drawing, but also the imagined situations that were being drawn out; the working contexts of in particular L, U and at a later stage N, who really did begin to see and imagine how people were working with her adhesive, what it entailed and how she could change it. We were all constructing narratives of practice and a shared imagination in one way or another and were using "narrative as a tool for probing and forging connections between our unstable, situated selves (Ochs & Capps 1996: 29). By "creating coherence out of the situation, while at the same time reckoning with its impossibility" (ibid.) or in other words, reckoning with the unknown, the discussion in the group shifted so that together the participants could mine a richer vein of association and opportunity.

It is interesting to compare the tell-and-draw situation from the first case to the second case where the students were asked to transition from talking about data and cases to actually doing an interview and making sense of it by building a tangible business model. It was only when they were asked to engage the doing of an interview and the making of their tangible business models that their participation opened up to include a richer degree of collaborative interaction and enabled them to discover theory in their practice. Initially the response of the students was hesitation and confusion, similar to that of the participants in the first case. It seems that in both cases the ability to surrender to an emergent situation, to relate to the goings on of the context of here and now, is one of the initial hurdles participants have to both encounter and engage if they are to enable a genuine synthesis of understanding, rather than a consensus, to emerge. There is a difference.

In the second case there were a number of instances where the ability to explore a range of perspectives on a task engendered richer understandings. In the first case it was clear that until a surrendering occurred for all involved it was difficult to allow the flow of association and imagination to occur. The initial accounts in the first case were brief, factual and to the point, but failed to leverage an improvised conversation. Gradually the complexity of the conversation, the making and doing increased to enable the identification of alternative links, associations and relationships to be made in the material of the situation (Heape 2007). It was through this process that N realised the significant impact her adhesive compositions had on the working lives of others. A shift occurred. The new, as a reconstructed understanding and shift in N's appreciation of herself and her work contributed to the whole group's re-understanding of what they were involved in. A re-understanding that was expressed first as: "Who do I and who can I share my knowledge with?" then as "I need to know what you guys need to know." This process of re-understanding is the result of a synthesis of divergent perspectives (ibid.) and the leveraging of variations of interpretation (Stacey, Griffin & Shaw 2000). As was noted in the first case, and is the same in the second case, the making, the drawing on the whiteboard or the tangible business modelling influenced the relating of all involved and vice versa.

In fact one can see this at the micro level as an example of how shifts of learning emerge as thematic patterns of experience and meaning, or knowing, in the ongoing relating between those involved that interweave as "a continually evolving present" (Stacey 2001: 125-131). These thematic patterns act as "enabling constraints within which individual and collective identity and difference are perpetually constructed as continuity and potential transformation" (ibid.). It is the positioning of those involved, their relating, in the "detailed nature of interactions and micro interactions," (Stacey, Griffin and Shaw 2000: 35) in the constant flow of the present as each moment unfolds from the pervious to fold into the next, that the potential for variation and transformation lies. Tensions are engendered in the relating through the complex interplay of the hopes, dreams and aspirations of those involved and the inherent constraints of the present.

This is exactly what was happening at the meeting in the first case. Each incident was unfolding from the previous, to interweave with a present moment that reached for the next, as Bamberger's (1991) "...reflecting transformations. ...One person's description, view, insight transforming as it bounced off the meanings held by another - were more like the transforming reflections of shapes in moving water." Each interweaving of thematic patterning was woven into, in Ingold's (2013) words "an answering to... a mixing of the movements" of our own "sentient awareness with the flows and currents of the animate life world" of the exchange the participants were involved in, the task they were engaging.

In both cases there is a gesturing back and forth, an interweaving of sensibilities, things, meaning and relationships that are both constituted and brought into play in the contingent, dynamic and emergent flow of a sense making process with its moment to moment construction, exploration and expansion of a shared space (Heape 2007); a shared inquiry, from which the new emerged.

5. CONCLUSION

The proposal of this paper was to expand the theoretical understanding, and the educational and actual practice of innovation to embrace knowing, doing, making and relating as central drivers of the process. Guided by the question: "How we can effectively explore, make and give sense to something new and engage in processes that encourage the new to emerge?" we presented and analysed two cases that described

various approaches to and methods for doing participatory innovation through participatory inquiry in both business and educational contexts.

The cases show how professional practitioners and learners develop new understanding through shared imagining across boundaries. The cases demonstrate how alternative conversations and practice ensue from the knowing, doing, making and relating of those involved. Practitioners and students collaboratively learn by developing insights and understandings that reach beyond the present into the future through the shared imagining that emerges from participatory inquiry.

Our most significant contribution to the debate about continuous innovation is that by proposing that innovation practice is learning through participatory inquiry one retrieves the notion of innovation as primarily focused on the development of concepts, products and services to that of organisational becoming (Thomas et al 2011), as regards business enterprise, and as educational becoming as regards innovation education. This becoming or unfolding of innovation allows one to consider innovation practice as primarily relational, learning and inquiry driven, and as variable and emergent. By seeing innovation from this perspective one is able to redirect attention to the resources that people do actually bring to bear in their day-to-day, getting-things-done of innovation practice. Resources that before might have been neglected take on a greater significance and value, both economical and human.

Our study has the following limitations. We chose to describe and analyse two very different contexts of practice in our attempt to identify and draw out common themes across the two. We acknowledge that the differences in context could detract from the findings in that the two cases relate to each other in our account and analysis, but are not compared to other accounts from similar contexts. As regards the temporal dimension of both cases, we do not account for events, decisions and organisational power manifestations that led up to, in the first case, the establishment of an innovation course in a manufacturing company and in the second a radically different design for a business modelling course. Equally, as regards the follow on effect of the accounts, in the first case, apart from a brief note, little is described of how the "rippling out" from the micro interactions of the meeting came to effect the participants' future operations or effect the whole organisation. Likewise, in the second case, there is no accounting for how the students managed to integrate their learning from the course into their further studies or how what they learnt and experienced benefited them in an actual workplace situation as an internee or graduate.

These limitations notwithstanding, there is considerable potential based on this approach. One issue that invites further investigation is to see how micro analyses of participant interactions in professional life can inform not only research, but to a greater degree educational practice, as it enables students to appreciate and reflect on how they can bring their knowing, doing, making and relating into play. Equally, as much as it is normal practice for the University of Southern Denmark's design research and education initiative - SDU Design, formally SPIRE - to work with research based education, we also cultivate an education based, research environment, which is a collaborative, project oriented, task and practice based process of participatory inquiry, driven by action research that engages both faculty and students in co-generative and co-learning research endeavours. It is our firm belief, and experience, that the processes, methods and tools of participatory inquiry that we develop in this co-learning environment can also benefit business and public organisational practice. Finally, it is worth noting that our principal motivation for considering such cross context research relevant is that although it relates to and describes very different situations, with greater or lesser degrees of novice, expertise or professional competence, the situations we are exploring resonate with each other and have common themes simply because, on a very

human level, they describe how people get things done and how they cope and learn to cope in the complex, dynamic and inherently risky environment of innovation practice.

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